

Fig. 1

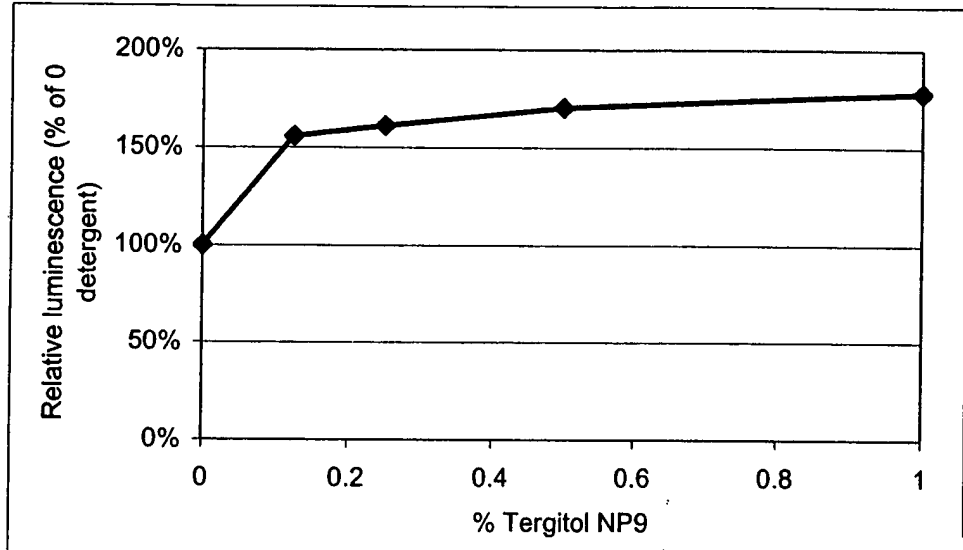


Fig. 2

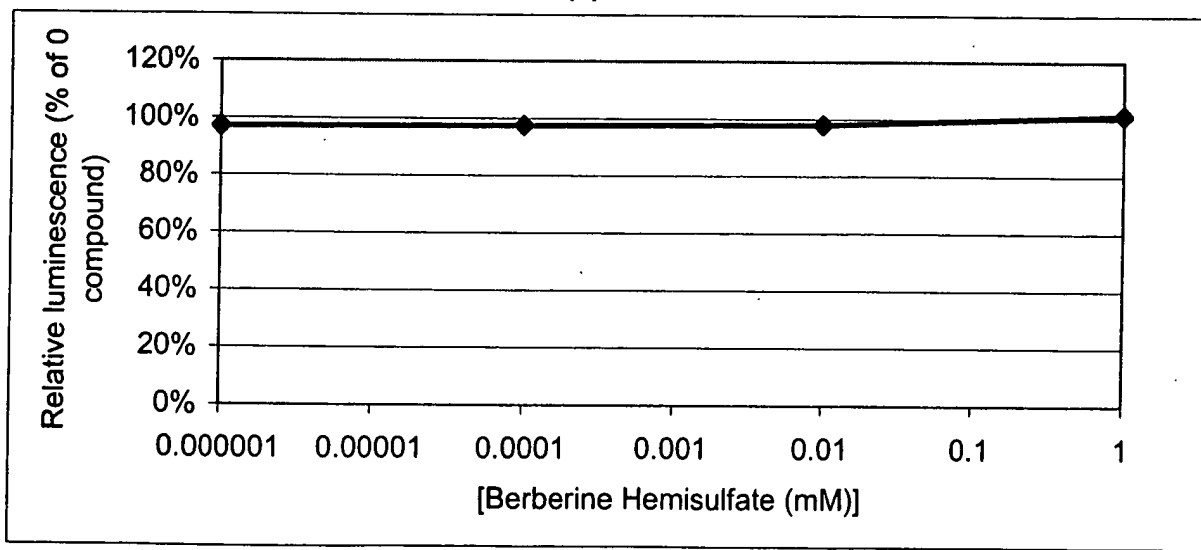


Fig. 3

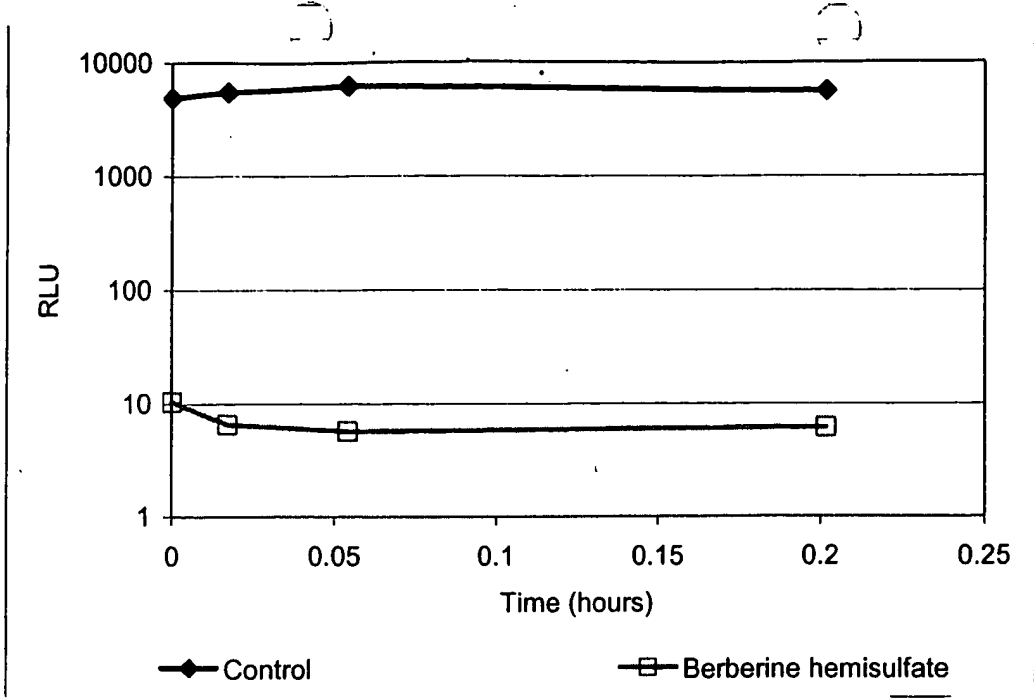


Fig 4

Non-Ionic Detergents						
Detergent Name †	Purity ‡	MW (monomer)	CMC (mM)§	CMC Conditions	Aggregation #	MW (micelle)
APO-10	M	218.3	4.6	50 mM Na ⁺	131	28,597
APO-12	M	246.4	0.568	50 mM Na ⁺	2232	549,965
BRIJ-35 (C ₁₂ E ₂₃)	M	1200 (avg)	0.09	50 mM Na ⁺	40	
C ₈ E ₆	M		9.9	25° C	32	13,000
C ₁₀ E ₆	M	427.1	0.9	50 mM Na ⁺	40	17,084
C ₁₀ E ₈	M	515.1				
C ₁₂ E ₆	M	451.1	0.087	50 mM Na ⁺		
C ₁₂ E ₈ (Atlas G2127)	M	539.1	0.11	50 mM Na ⁺	123	66,309
C ₁₂ E ₉	M	583.1	0.08	50 mM Na ⁺		
C ₁₂ E ₁₀ (Brij 36T)	M		0.2			
C ₁₆ E ₁₂	M		0.0023	25° C	152	117,000
C ₁₆ E ₂₁	M		0.0039	25° C	70	82,000
Cyclohexyl- <i>n</i> -ethyl-β-D-Maltoside	M	452.5	120	50 mM Na ⁺		
Cyclohexyl- <i>n</i> -hexyl-β-D-Maltoside	M	508.6	0.56	50 mM Na ⁺		
Cyclohexyl- <i>n</i> -methyl-β-D-Maltoside	M	438.5	340	50 mM Na ⁺		
<i>n</i> -Decanoyl sucrose	M	496.6	2.5	50 mM Na ⁺		
<i>n</i> -Decyl-β-D-glucopyranoside	M	320.4	2.2	50 mM Na ⁺		
<i>n</i> -Decyl-β-D-maltopyranoside	M	482.6	1.6	50 mM Na ⁺		
<i>n</i> -Decyl-β-D-thiomaltoside	M	498.6	0.9	50 mM Na ⁺		
Digitonin	M	1229.3			60	70,000
<i>n</i> -Dodecanoyl sucrose	M	524.6	0.3	50 mM Na ⁺		
<i>n</i> -Dodecyl-β-	M	348.5	0.13	50 mM Na ⁺		70,000

Fig 5

D-glucopyranoside						
<i>n</i> -Dodecyl-β-D-maltoside	M	348.5	0.15	50 mM Na ⁺	98	70,000
Genapol C-100	P	627 (avg)				50,000
Genapol X-80	P	553 (avg)	0.06-0.15	50 mM Na ⁺		
Genapol X-100	P	641 (avg)	0.15	50 mM Na ⁺	88	56,000
HECAMEG	M	335.4	19.5	50 mM Na ⁺		
Heptane-1,2,3-triol	M	148.2				
<i>n</i> -Heptyl-β-D-glucopyranoside	M	278.3	79	50 mM Na ⁺		
<i>n</i> -Heptyl-β-D-thioglucopyranoside	M	294.3	30	50 mM Na ⁺		
LUBROL PX	P	582	0.006	50 mM Na ⁺	110	64,000
MEGA-8 (Octanoyl-N-methylglucamide)	M	321.5	58	50 mM Na ⁺		
MEGA-9 (Nonanoyl-N-methylglucamide)	M	335.5	19-25	50 mM Na ⁺		
MEGA-10 (Decanoyl-N-methylglucamide)	M	349.5	6-7	50 mM Na ⁺		
<i>n</i> -nonyl-β-D-glucopyranoside	M	306.4	6.5	50 mM Na ⁺		
Nonidet P-10 (NP-10)	P					
Nonidet P-40 (NP-40)	M	603.0	0.05-0.3	50 mM Na ⁺	100-155	
<i>n</i> -Octanoyl-β-D-glucosylamine (NOGA)	M	305.4	80	50 mM Na ⁺		
<i>n</i> -Octanoyl sucrose	M	468.5	24.4	50 mM Na ⁺		
<i>n</i> -Octyl-α-D-glucopyranoside	M	292.4	20			

<i>n</i> -Octyl- β -D-glucopyranoside	M	292.4	25	50 mM Na ⁺	27	7,895
<i>n</i> -Octyl- β -D-maltopyranoside	M	454.5	23.4	50 mM Na ⁺		90,000
PLURONIC F-68	P	8400 (avg)				
PLURONIC F-127	P	12,600 (avg)				
THESIT		583	0.1	50 mM Na ⁺		
TRITON X-100 (<i>tert</i> -C ₈ -O-E _{9.6} ; like NP-40)	P	650 (avg)	0.3	50 mM Na ⁺	140	90,000
TRITON X-100 hydrogenated	P	631 (avg)	0.25	50 mM Na ⁺		
TRITON X-114 (<i>tert</i> -C ₈ -O-E _{7.8})	P	537 (avg)	0.35	50 mM Na ⁺		
TWEEN 20 (C ₁₂ - sorbitan-E ₂₀ ; Polysorbate 20)	P	1228 (avg)	0.059	50 mM Na ⁺		
TWEEN 40 (C ₁₆ - sorbitan-E ₂₀)	P		0.027			
TWEEN 60 (C ₁₈ - sorbitan-E ₂₀)	P		0.025			
TWEEN 80 (C _{18.1} - sorbitan-E ₂₀)	P	1310 (avg)	0.012	50 mM Na ⁺	58	75,980
<i>n</i> -Undecyl- β -D-maltoside	M	496.6	0.59	50 mM Na ⁺		

Ionic Detergents

Detergent Name †	Purity †	MW (monomer)	CMC (mM)§	CMC Conditions	Aggregation #	MW (micelle)
Caprylic acid, Na ⁺ salt (<i>n</i> -octanoate)	M	166.2	351			
Cetylpyridinium chloride	M	274.0	0.90			90,000
CTAB (Cetyltrimethylammonium)	M	364.5	1.0	50 mM Na ⁺	170	62,000

bromide)						
Cholic acid, Na ⁺ salt	M	430.6	4	50 mM Na ⁺	3	1200
Decanesulfonic acid, Na ⁺ salt	M	244.3	32.6			
Deoxycholic acid, Na ⁺ salt (DOC)	M	414.6	1.5	50 mM Na ⁺	5	2000
Digitonin	P	1229	0.087		60	70,000
Dodecyltrimethylammonium bromide	M	308.4	14			
Glycocholic acid, Na ⁺ salt	M	487.6	7.1	50 mM Na ⁺	2.1	1000
Glycodeoxycholic acid, Na ⁺ salt	M	471.6	2.1	50 mM Na ⁺	2.1	1000
Lauroylsarcosine, Na ⁺ salt (Sarkosyl)	M	293.4			2	900
Lithium <i>n</i> -dodecyl sulfate	M	272.3	6-8	50 mM Na ⁺		
Lysophosphatidylcholine (16:0)	M	495.7	0.007		186	92,000
Sodium <i>n</i> -dodecyl sulfate (SDS, Lauryl sulfate, Na ⁺ salt)	M	288.5	2.30	50 mM Na ⁺	84	24,200
Taurochenodeoxycholic acid, Na ⁺ salt	M	521.7				
Taurocholic acid, Na ⁺ salt	M	537.7	3.3	20 mM Na ⁺	4	2150
Taurodehydrocholic acid, Na ⁺ salt	M	531.6				
Taurodeoxycholic acid, Na ⁺ salt	M	521.7	2.7	50 mM Na ⁺	8	4200
Taurolithocholic acid, Na ⁺ salt	M	505.7				
Tauroursodeoxycholic Acid	M	521.7				
Tetradecyltrimethyl-	M	336.4	3.5	30° C	81	27,000

ammonium bromide (TDTAB)						
TOPPS	M	350.5	4.5	50 mM Na ⁺		
Zwitterionic Detergents						
Detergent Name †	Purity ‡	MW (monomer)	CMC (mM)§	CMC Conditions	Aggregation #	MW (micelle)
BigCHAP	M	878.1	3.4	50 mM Na ⁺	10	8800
CHAPS	M	614.9	6-10	50 mM Na ⁺	10	6150
CHAPSO	M	630.9	8	50 mM Na ⁺	11	9960
DDMAU	M	397.7	0.13	50 mM Na ⁺		
EMPIGEN BB (N-Dodecyl-N,N-dimethylglycine)	M	272.0	1.6-2.1	50 mM Na ⁺		
Lauryldimethylamine oxide (LDAO, LDAO, Empigen OB)	M	229.4	1-3	50 mM Na ⁺	76	17,000
ZWITTERGENT 3-08	M	279.6	330	50 mM Na ⁺		
ZWITTERGENT 3-10	M	307.6	25-40	50 mM Na ⁺	41	12,600
ZWITTERGENT 3-12 (3-Dodecyl-dimethylammonio-propane-1-sulfonate)	M	335.6	2-4	50 mM Na ⁺	55	18,500
ZWITTERGENT 3-14	M	363.6	0.1-0.4	50 mM Na ⁺	83	30,200
ZWITTERGENT 3-16	M	391.6	0.01-0.06	50 mM Na ⁺	155	60,700

† BRIJ and TWEEN detergents are registered trademarks of ICI Americas, Inc.; EMPIGEN detergents are registered trademarks of Albright and Willson; LUBROL is a registered trademark of Imperial Chemical; and ZWITTERGENT is a registered trademark of Calbiochem-Novabiochem Corporation.

‡ "Purity" refers to the "dispersity" of the detergent preparation. "P" indicates heterogeneity or polydispersity in molecular form, while "M" indicates homogeneity or monodispersity.

§ CMC refers to the Critical Micellar Concentration, or that total concentration of detergent that corresponds to the maximum possible concentration of detergent monomer in solution. The CMC is sensitive to temperature and polarity of the medium. The CMC is generally given at 20-25° C, unless indicated otherwise in the table.

References: *Values in the table were taken from one or more of the following sources*

1. Biochemistry LabFax, (J.A.A. Chambers and D. Rickwood, eds.), Bios Scientific Publishers, Oxford (Academic Press) (1993).
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